Issue date: 06/15/2016

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: IDH number: Not available.

Product type: Polyurethane adhesive

Restriction of Use: None identified Region: United States

Company address: Contact information:

One or more components of this product are not listed on the U.S. Toxic Substances Control Act (TSCA) inventory. As such, this product may only be used for research and development purposes as described in 40 CFR 720.36. Research and development products must be used by, or directly under the supervision of, a technically qualified individual. Exercise due care. This product may not be used, processed or distributed for a commercial purpose in the U.S.

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER: CAUSES SKIN IRRITATION.

MAY CAUSE AN ALLERGIC SKIN REACTION.

CAUSES SERIOUS EYE IRRITATION.

HARMFUL IF INHALED.

MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING

DIFFICULTIES IF INHALED.

CAUSES DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED

EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
ACUTE TOXICITY INHALATION	4
SKIN IRRITATION	2
EYE IRRITATION	2A
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	1
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	1

PICTOGRAM(S)



Precautionary Statements

Prevention:

Do not breathe vapors, mist, or spray. Wash affected area thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection. In case of inadequate ventilation wear respiratory protection.

Response: IF ON SKIN: Wash with plenty of water, IF INHALED: Remove victim to fresh air and keep at

rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If eve irritation persists: Get medical attention. If experiencing respiratory symptoms: Call a

poison center or physician. Take off contaminated clothing.

Storage: Not prescribed

Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local

governmental regulations.

83 % of the mixture consists of ingredient(s) of unknown acute toxicity.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS Hazardous Component(s) CAS Number Percentage*

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give

artificial respiration. Get medical attention.

Skin contact: Immediately flush skin with plenty of water (using soap, if available).

Immediately remove soiled or soaked clothing. Get medical attention.

Eye contact: Check for and remove any contact lenses. Rinse immediately with plenty of

water, also under the eyelids, for at least 15 minutes. Get medical attention.

Ingestion: If material is ingested, immediately contact a physician or poison control

center. Keep individual calm. DO NOT induce vomiting unless directed to do

so by medical personnel.

Symptoms: See Section 11.

Notes to physician: Persons with asthmatic-type conditions, chronic bronchitis, other chronic

respiratory diseases or recurrent skin eczema or sensitization should be

excluded from working with isocyanates.

5. FIRE FIGHTING MEASURES

Extinguishing media: Use extinguishing measures appropriate to local circumstances and the

surrounding environment. Water spray (fog), foam, dry chemical or carbon

dioxide.

Special firefighting procedures: Wear self-contained breathing apparatus and full protective clothing, such as

turn-out gear. Keep unnecessary personnel away.

^{*} Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

Unusual fire or explosion hazards: Sealed containers at elevated temperatures or contaminated with water may

rupture explosively. In case of fire, keep containers cool with water spray.

Hazardous combustion products: Irritating and toxic gases or fumes may be released during a fire. Isocyanate

vapors. Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Hydrogen

cyanide.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Do not empty into drains / surface water / ground water. Follow all local, state,

federal and provincial regulations for disposal.

Clean-up methods: Evacuate and ventilate spill area; dike spill to prevent entry into water system;

wear full protective equipment during clean-up. Persons not wearing appropriate protective equipment should be excluded from area of spill until clean-up has been completed. For minor spills, absorb isocyanates with sawdust or other absorbent, shovel into suitable unsealed containers, transport to well ventilated area (outside) and treat with neutralizing solution: mixture of 80% water and 20% non-ionic surfactant Tergitol TMN-10; or 90% water, 3-8% concentrated ammonia and 2% detergent. Large quantities may be pumped into closed, but not sealed containers for disposal. If temporary control of isocyanate vapor is required, a blanket of protein foam (available at

most fire departments) may be placed over spill.

7. HANDLING AND STORAGE

Handling: Use only in well-ventilated areas. Prevent contact with eyes, skin and clothing.

Do not breathe vapor and mist. Wash thoroughly after handling. Wear

suitable protective clothing, safety glasses and gloves.

Storage: Do not let moisture contaminate this material. Product reacts with water to

release carbon dioxide, which could build up pressure in closed containers and lead to bursting. Do not reseal if moisture contamination is suspected. Keep container tightly closed and in a cool, well-ventilated place away from

incompatible materials. Protect from direct sunlight.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
	None	None	None	None
	None	None	None	None
	0.005 ppm TWA	0.02 ppm (0.2 mg/m3) Ceiling	None	None
	None	None	None	None
	None	None	None	None
	None	None	None	None

Engineering controls: Work should be done in an adequately ventilated area (i.e., ventilation

sufficient to maintain concentrations below one half of the PEL and other relevant standards). Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination. Monitoring of airborne isocyanates in the breathing zone of individuals should become part of the overall employee exposure characterization program. Once a person is diagnosed as sensitized to an isocyanate, no further exposure can be

permitted.

Respiratory protection: Use NIOSH approved respirator if there is potential to exceed exposure

limit(s). A positive pressure, supplied-air respirator or a self-contained breathing apparatus is recommended when: airborne concentrations of isocyanate are known to exceed 0.005 ppm; operations are performed in a confined space or area with limited ventilation; material is heated or sprayed. Do not inhale vapors and fumes. Observe OSHA regulations for respirator use

(29 CFR 1910.134).

Eye/face protection: Safety goggles or safety glasses with side shields. Full face protection should

be used if the potential for splashing or spraying of product exists. Do not wear

contact lenses.

Skin protection:Use impermeable gloves and protective clothing as necessary to prevent skin

contact. The workplace should be equipped with an emergency shower and

eye-rinsing facility.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid

Brown, Clear Color: Odor: Characteristic Odor threshold: Not available. pH: Not applicable Vapor pressure: Not available. Boiling point/range: Not available. Melting point/ range: Not available. Vapor density: Not available. Flash point: Not applicable Flammable/Explosive limits - lower: Not available. Flammable/Explosive limits - upper: Not available.

Autoignition temperature:

Flammability:

Evaporation rate:

Solubility in water:

Partition coefficient (n-octanol/water):

VOC content:

Not available.

Not available.

Not available.

Not available.

Viscosity:Not available.Decomposition temperature:Not available.

10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Hazardous reactions: Exothermic. Polymerization may occur at elevated temperature or in the presence of

incompatible materials.

Hazardous decomposition

products:

Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Hydrogen cyanide. Isocyanate

vapors

Incompatible materials: Water. Moisture. Humid air and/or water will produce carbon dioxide which will pressurize the

container. Amines. Alcohols. Ammonia. Strong bases.

Reactivity: Not available.

Conditions to avoid: Avoid moisture. Container can be pressurised by carbon dioxide due to reaction with humid air

and/or water. Protect from direct sunlight. Excessive heat.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects/Symptoms

Inhalation: May cause respiratory tract irritation. This product may cause sensitization by inhalation and

skin contact. Overexposure to isocyanates may cause burning sensation of respiratory tract, cough, shallow breathing, burning sensation, tightness in chest, reduced lung function. As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the TLV. Chronic overexposure to isocyanates has

been reported to cause lung damage.

Skin contact: Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitisation

of susceptible persons. Isocyanates react with skin protein and moisture and can cause irritation which may include the following symptoms: reddening, swelling, rash, scaling or

blistering.

Eye contact: Liquid or vapor can cause moderate to severe irritation. Symptoms can include irritation,

redness, scratching of the cornea, and tearing. Conjunctivitis.

Ingestion: Ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Not expected

under normal conditions of use.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects	
	None	No Data	
	None	Allergen, Irritant, Kidney, Liver, Respiratory	
	Inhalation LC50 (Rat, 4 h) = 0.38 mg/l Inhalation LC50 (Rat, 4 h) = 0.369 mg/l	Irritant, Respiratory, Allergen	
	None	Allergen, Irritant, Respiratory	
	None	No Records No Data	
	None		

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information:Do not empty into drains, soil or bodies of water.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Legal disposition of wastes is the responsibility of the owner/generator of the

waste. Applicable federal, state and/or local regulations must be followed during treatment, storage, or disposal of waste containing this product.

Hazardous waste number: To the best of our knowledge, this product is not listed nor does it meet the

criteria of a hazardous waste if discarded in its purchased form. However, under RCRA, it is the responsibility of the user to determine at the time of disposal whether a product meets any of the RCRA hazardous waste criteria. This is because product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics under the new Toxicity Characteristics Leaching Procedure (TCLP) 40 Code of Federal Regulations

261.20-24.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Not regulated

Hazard class or division: None Identification number: None Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Not regulated Hazard class or division: None Identification number: None Packing group: None

Water Transportation (IMO/IMDG)

Proper shipping name: Not regulated Hazard class or division: None Identification number: None Packing group: None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status:One or more components of this product are not listed on the U.S. Toxic Substances

Control Act (TSCA) inventory. As such, this product may only be used for research and development purposes as described in 40 CFR 720.36. All other components of this

product are listed or are exempt from listing.

TSCA 12 (b) Export Notification: None above reporting de minimis

CERCLA/SARA Section 302 EHS: None above reporting de minimis.

CERCLA/SARA Section 311/312: Immediate Health, Delayed Health, Reactive

CERCLA/SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of

section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Isocyanic acid, polymethylenepolyphenylene ester (CAS# 9016-87-9).

Methylenebis(phenylisocyanate) (CAS# 101-68-8).

California Proposition 65: This product contains a chemical known in the State of California to cause cancer.

Canada Regulatory Information

CEPA DSL/NDSL Status:

One or more components are not listed on, and are not exempt from listing on either the

Domestic Substances List or the Non-Domestic Substances List.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: First issue.

Prepared by:

Issue date: 06/15/2016

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